THAT WHICH IS CLAIMED IS:

1. A device for detecting a presence of bacteria in a perishable food product comprising:

a gas-permeable sensor housing positionable within an interior of food packaging; and

a pH indicator positioned within the housing, for detecting a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite, the housing and the pH indicator being safe for human consumption.

2. The device recited in Claim 1, wherein the pH indicator is adapted to exhibit a radiative change selected from a group consisting of absorbance, fluorescence, and luminescence.

3. The device recited in Claim 2, wherein the radiative change is detectable by at least one of visual means and an optical detection instrument.

4. The device recited in Claim 2, wherein the pH indicator comprises means for undergoing a color change commensurate with a pH change.

5. The device recited in Claim 4, further comprising a reference element positionable adjacent the color change undergoing means, the reference element having a substantially immutable color for use in comparing the color change undergoing means thereagainst.

6. The device recited in Claim 5, wherein the color change undergoing means and the reference element are relatively positioned so that a color change undergone by the color change undergoing means forms a warning icon against the reference element.

7. The device recited in Claim 1, wherein the housing is affixable to the food packaging interior by one of physical and chemical means.

8. The device recited in Claim 1, wherein the pH indicator comprises an aqueous pH indicator and the housing comprises an at least partially transparent container for housing the pH indicator.

9. The device recited in Claim 8, wherein the housing comprises one of a substantially transparent film and substantially transparent container, the housing gas permeable and charged-particle impermeable.

10. The device recited in Claim 1, wherein the housing comprises a substantially transparent silicone, and the pH indicator comprises an aqueous pH indicator encapsulated within the silicone.

11. The device recited in Claim 1, wherein the housing comprises a substantially transparent agar and the pH indicator comprises an aqueous pH indicator cured in a mixture with the agar.

12. The device recited in Claim 11, wherein the housing further comprises a charged-particle-impermeable coating surrounding the agar – pH indicator mixture.

13. The device recited in Claim 12, wherein the coating comprises one of a charged-particle-impermeable film and a silicone layer.

14. The device recited in Claim 1, wherein the housing is positionable within the food packaging interior in spaced relation from the food product.

15. The device recited in Claim 1, wherein the housing has a plurality of gas-permeable surfaces.

16. The device recited in Claim 1, wherein at least a portion of the pH indicator is adapted to undergo a substantially irreversible change of state upon detecting the metabolite concentration change.

17. A device for detecting a presence of bacteria in a perishable food product comprising:

a gas-permeable sensor housing positionable within an interior of food packaging, the housing comprising a first container and a second container fluidically isolated therefrom;

means for establishing fluid communication between the first and the second container;

a pH indicator in a substantially desiccated state positioned within the first container, the pH indicator in a hydrated state adapted to detect a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite; and

a hydrating solution positioned within the second container, wherein, in storage, the first and the second containers are fluidically isolated from each other, and, in use, the establishing means is actuated to rehydrate the pH indicator.

18. The device recited in Claim 17, wherein the hydrating solution has sufficient alkalinity that a mixture of the pH indicator therewith results in an aqueous pH indicator having an initial pH in the alkaline range.

19. The device recited in Claim 17, further comprising a container support and a fluid tube affixed to the support, and wherein the first and the second containers comprise a first and a second blister affixed to the support and in fluid communication with the tube, the establishing means comprises a frangible barrier positioned to block fluid access through the tube, a breaking of the frangible barrier establishing fluid communication between the first and the second blister.

20. A device for detecting a presence of bacteria in a perishable food product comprising:

a gas-permeable sensor housing positionable within an interior of food packaging, the housing comprising a first container and a second container fluidically isolated therefrom;

means for establishing fluid communication between the first and the second container;

a pH indicator in an acidic state positioned within the first container, the pH indicator in an alkaline state adapted to detect an increase in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH decrease effected by a presence of the metabolite; and

an alkaline solution positioned within the second container, wherein, in storage, the first and the second containers are fluidically isolated from each other, and, in use, the establishing means is actuated to raise the pH of the pH indicator into an alkaline range.

21. The device recited in Claim 20, further comprising a container support and a fluid tube affixed to the support, and wherein the first and the second containers comprise a first and a second blister affixed to the support and in fluid communication with the tube, the establishing means comprises a frangible barrier positioned to block fluid access through the tube, a breaking of the frangible barrier establishing fluid communication between the first and the second blister.

22. A device for detecting a presence of bacteria in a perishable food product comprising:

a sealed sensor housing comprising a base material having a first pH in an alkaline range, the housing containing a gas for lowering the pH to a second pH during storage, the housing positionable within an interior of food packaging;

means for unsealing the housing preparatory to device usage, for releasing at least a portion of the gas and thereby raising the pH from the second pH to a third pH approximately equal to the first pH; and

a pH indicator positioned within the housing, for detecting a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite, the pH indicator having a greater stability at the second pH than at the first pH.

23. The device recited in Claim 22, wherein the base material comprises one of agar and silicone, the base material prepared with an alkaline solution.

24. The device recited in Claim 22, wherein the gas comprises carbon dioxide.

25. A device for detecting a presence of bacteria in a perishable food product comprising:

a pH indicator for detecting a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite;

a gas-permeable sensor housing adapted to contain the pH indicator, the housing having means for inhibiting light degradation of the pH indicator, the housing positionable within an interior of food packaging.

26. The device recited in Claim 25, wherein the light degradation inhibiting means comprises a dye impregnated into the housing, the dye adapted to shield the pH indicator from at least ultraviolet wavelengths.

27. A device for detecting a presence of bacteria and lack of freshness in a perishable food product comprising:

a gas-permeable sensor housing positionable within an interior of food packaging;

a pH indicator positioned within the housing, for detecting a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite; and

a time-temperature indicator positioned within the housing, for providing an integrated temperature history experienced by the food packaging; wherein

the pH indicator and the time-temperature indicator each contributes to a unitary colorimetric change.

28. The device recited in Claim 27, further comprising a hydrating solution wherein:

the housing comprises a first container, a second container fluidically isolated therefrom, and means for establishing fluid communication therebetween;

the pH and the time-temperature indicators in storage reside in the first container in a substantially desiccated state, the pH indicator in a hydrated state adapted to detect the metabolite concentration change, the time-temperature indicator in a hydrated state adapted to provide the integrated temperature history;

the hydrating solution in storage resides in the second container; and

the establishing means serves to rehydrate and activate the pH and the time-temperature indicators when desired.

29. A device for detecting a presence of bacteria in a perishable food product comprising:

a gas-permeable sensor housing positionable within an interior of food packaging; and

an aqueous pH indicator positioned within the housing, for detecting a change in a gaseous volatile organic compound concentration indicative of bacterial growth, the gaseous volatile organic compound when exposed to an aqueous solution undergoing a reaction culminating in an increase in pH, the indicator having an initial pH in an acid range.

30. The device recited in Claim 29, wherein the housing comprises one of silicone and a combination of agar and silicone.

31. The device recited in Claim 30, wherein the indicator comprises an acid for establishing the initial pH.

32. The device recited in Claim 29, wherein the indicator comprises one of bromothymol blue, phenol red, and cresol red, the indicator having an initial color indicating the acidic initial pH, the indicator turning a second color upon experiencing an increase in pH.

33. A device for detecting a presence of bacteria in a perishable food product comprising:

a gas-permeable sensor housing positionable within an interior of food packaging; and

a carbon dioxide indicator positioned within the housing, for detecting bacterial growth, the indicator comprising an aqueous solution including calcium hydroxide, an infusion of carbon dioxide into the housing effecting a detectable calcium carbonate precipitate.

34. A package for storing a perishable food product therein comprising:

a food product support;

a sealant positioned in substantially gas-impermeable sealing relation to the food support, thereby forming an interior space into which the food product may be packaged;

a gas-permeable sensor housing positionable within the interior space; and

a pH indicator positioned within the housing, for detecting a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite.

35. The package recited in Claim 34, wherein the pH indicator is adapted to exhibit a radiative change selected from a group consisting of absorbance, fluorescence, and luminescence.

36. The package recited in Claim 35, wherein the radiative change is detectable by at least one of visual means and an optical detection instrument.

37. The package recited in Claim 35, wherein the pH indicator comprises means for undergoing a color change commensurate with a pH change.

38. The package recited in Claim 37, further comprising a reference element positionable adjacent the color change undergoing means, the reference element having a substantially immutable color for use in comparing the color change undergoing means thereagainst.

39. The package recited in Claim 38, wherein the color change undergoing means and the reference element are relatively positioned so that a color change undergone by the color change undergoing means forms a warning icon against the reference element.

40. The package recited in Claim 34, wherein the housing is affixable to the food packaging interior by one of physical and chemical means.

41. The package recited in Claim 34, wherein the pH indicator comprises an aqueous pH indicator having an initial pH in an alkaline range.

42. The package recited in Claim 34, wherein the housing comprises a substantially transparent silicone, and the pH indicator comprises an aqueous pH indicator encapsulated within the silicone.

43. The package recited in Claim 34, wherein the housing comprises one of a substantially transparent film and substantially transparent container, the housing gas permeable and charged-particle impermeable.

44. The package recited in Claim 34, wherein the housing comprises a substantially transparent agar and the pH indicator comprises an aqueous pH indicator cured in a mixture with the agar.

45. The package recited in Claim 44, wherein the housing further comprises a charged-particle-impermeable coating surrounding the agar – pH indicator mixture.

46. The package recited in Claim 45, wherein the coating comprises one of a charged-particle-impermeable film and silicone.

47. A method of detecting a presence of bacteria in a perishable food product comprising the steps of:

supporting a food product by a food packaging element;

sealing the food product and a gas-permeable sensor within the food packaging, the sensor comprising a pH indicator adapted to detect a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite; and

monitoring the pH indicator for a bacterial concentration in the food product in excess of a predetermined level.

48. A method of packaging a perishable food product comprising the steps of:

supporting a food product by a food packaging element;

positioning a gas-permeable sensor housing within an interior of the food packaging element, the sensor comprising a pH indicator adapted to detect a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite; and

sealing the food product and the housing within the food packaging.

49. The method recited in Claim 48, wherein the sensor-positioning step comprises positioning the sensor in spaced relation from the food product.

50. A method of making a device for detecting a presence of bacteria in a perishable food product comprising the step of:

positioning a pH indicator within a gas-permeable sensor housing, the housing positionable within an interior of food packaging, the pH indicator adapted to detect a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite, the housing and the pH indicator being safe for human consumption.

51. The method recited in Claim 50, wherein the housing has a plurality of gas-permeable surfaces.

52. The method recited in Claim 50, wherein at least a portion of the pH indicator is adapted to undergo a substantially irreversible change of state upon detecting the metabolite concentration change.

53. A method of making a device for detecting a presence of bacteria in a perishable food product comprising the steps of:

positioning a pH indicator in a substantially desiccated state within a first container, the pH indicator in a hydrated state adapted to detect a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite a gas-permeable sensor housing positionable within an interior of food packaging, the housing comprising a first container and a second container fluidically isolated therefrom;

positioning a hydrating solution within a second container, the second container fluidically isolated from the first container;

providing means for establishing fluid communication between the first and the second container for use to rehydrate the pH indicator with the hydrating solution.

54. A method of making a device for detecting a presence of bacteria in a perishable food product comprising the steps of:

positioning a pH indicator in an acidic state within a first container, the pH indicator in an acidic state adapted to detect an increase in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH decrease effected by a presence of the metabolite second container fluidically isolated therefrom;

positioning an alkaline solution within a second container, the second container fluidically isolated from the first container;

providing means for establishing fluid communication between the first and the second container for use to raise a pH of the pH indicator with the alkaline solution.

55. A method of making a device for detecting a presence of bacteria in a perishable food product comprising the steps of:

positioning a pH indicator within a gas-permeable sensor housing, the housing positionable within an interior of food packaging, the pH indicator adapted to detect a change in a gaseous bacterial metabolite concentration indicative of bacterial growth;

adding a composition to at least one of the housing and the pH indicator, the composition having means for inhibiting light degradation of the pH indicator.

56. A method of making a device for detecting a presence of bacteria in a perishable food product comprising the steps of:

positioning a pH indicator within a gas-permeable sensor housing, the housing positionable within an interior of food packaging, the pH

indicator adapted to detect a change in a gaseous bacterial metabolite concentration indicative of bacterial growth, a pH change effected by a presence of the metabolite;

positioning a time-temperature indicator within the housing, for providing an integrated temperature history experienced by the food packaging; wherein

the pH indicator and the time-temperature indicator each contributes to a unitary colorimetric change.

57. A method of making a device for detecting a presence of bacteria in a perishable food product comprising the step of:

positioning an aqueous pH indicator within a gas-permeable sensor housing, the indicator adapted to detect a change in a gaseous volatile organic compound concentration indicative of bacterial growth, the gaseous volatile organic compound when exposed to an aqueous solution undergoing a reaction culminating in an increase in pH, the indicator having an initial pH in an acid range.

58. A method of making a device for detecting a presence of bacteria in a perishable food product comprising the steps of:

positioning a gas-permeable sensor housing within an interior of food packaging; and

positioning a carbon dioxide indicator within a gas-permeable housing, the indicator comprising an aqueous solution including calcium hydroxide, an infusion of carbon dioxide into the housing effecting a detectable calcium carbonate precipitate.